
Daphne Kinzler

COURTING SAGE GROUSE CHANGES

By Ron Wilson

On those spring mornings when the wind is down you can hear the birds before you see them. The sound is sort of a liquid "plopping" – a strange noise for the arid badlands – that carries up to a mile across sagebrush flats and over hills worn rough by weather and time.

It's sage grouse music – the quick inflating and deflating of mustard-colored air sacs located south of what passes for a chin on the male birds. Once in view, the suitors raise tail feathers into spiky fans, ruffle wings, strut, bob … do whatever it takes to impress those females in attendance. It's one of the grandest mating displays in nature, with a touch of comedy for the imaginative as the large, white, puffed-up chests on the males resemble flabby bellies of overweight men who've shunned the sun.

Sage grouse begin gathering on strutting grounds, or leks, in southwest North Dakota as early as late February, with some birds continuing to make frequent visits into June. This is basically the way it has been for years and years.

But not everything remains the same.

Since the early 1960s, the sage grouse hunting season in North Dakota – a three-day affair the majority of those years – has opened the Monday after the sharp-tailed grouse opener in early to mid-September. This fall, North Dakota Game and Fish Department staff is strongly considering delaying the opener, a move that will hopefully better protect a segment of the population critical to producing future generations. No specific dates have been set at this time.

"In the last four or five years, for some reason, the sage grouse adult harvest has been almost entirely females," said Jerry Kobriger, Department upland game management supervisor in Dickinson. "And, as we know, these are the birds that produce all the young."

Wyoming, Kobriger said, has a delayed season to limit the harvest of adult female sage grouse, while Montana doesn't because wildlife managers there believe such a move doesn't make a difference.

According to nearly 40 years of sage grouse harvest data in North Dakota, however, bumping the season later into September does safeguard the adult female population. "I looked at data on almost 700 birds and it showed the later we started, the percentage of adult females shot decreased," Kobriger said.

Since 1964, the sage grouse season in southwest North Dakota has opened as late as September 23. The majority of the seasons, however, have started earlier than that. Season lengths have typically been three days, but there was a stretch from 1969-74 when the birds could be hunted for seven days. The daily limit has always been one bird.

Maybe the reason more adult females have been shot the last four or five years can be attributed, simply, to location. Hunters are locating mainly those birds, momma and her young, which are typically found nearer roads and alfalfa fields than adult males.

That doesn't mean adult males don't get flushed and shot at, because they do. It's just that these birds, which aren't hanging around the hens and broods during the hunting season, have secreted themselves away in places some hunters aren't venturing.

A secondary reason for delaying the opener is to give the feathers on the big adult males time to "color out" and complete the molt, making them better specimens for taxidermy purposes. "Some people want to mount a bird, and the grouse are better suited for that later in the fall," Kobriger said.

Sage grouse, the largest members of the grouse family in North America, are handsome birds. Both sexes are feathered to the toes and have pointed tails and dark brown or black abdomens. Upper body plumage is a patchwork of brown, black and buff. Females have buffy throats with black markings, while males have a blackish-brown throat separated from a dark V-shaped pattern on the neck by a white margin.

Reducing the harvest on the best producers of young – adult females lay seven to eight eggs – is important, especially when you consider how skinny the sage grouse population is in North Dakota. According to fall population estimates, only 1,000-2,000 birds occupy an extremely limited range in the southwest corner of the state. Slope and Bowman counties hold the most birds.

Historically, sage grouse have never been big in the state. Like pronghorn, bighorn sheep and ruffed grouse, to name a few species, North Dakota is at the edge of the big birds' range. "Sage grouse are at the edge where habitat and climatic factors limit their success and expansion," said Randy Kreil, Game and Fish wildlife division chief.

To get the best population estimate of grouse living in southwest North Dakota, biologists count males that show up on strutting grounds – between 15-20 active leks today – in spring. Biologists have been doing this for more than a half-century, with the first count coming in 1951. Population estimates are basically that, estimates, as not every bird on every ground can be accounted for. Scientists arrive at a total by taking the number of males and adding in the female population – the latter are said to outnumber the former 2-to-1 – plus those young expected to hatch that year.

"There have been only two years since 1951 where there were no counts at all," Kobriger said. "Today, the sage grouse population on the east side of the Little Missouri River is just a fraction of what it used to be, as it's declined in the last half-century. We've estimated 1,000-2,000 birds in southwest North Dakota going into fall the last 10-15 years."

The all-time high number of male sage grouse counted on leks in southwest North Dakota was 542 birds in 1953. Compare that to 174 males in 2003 and 167 males in 2002. As recently as 1984, however, 367 strutting males were counted in the southwest.

Kobriger knows what he's talking about when it comes to sage grouse, having counted these big birds in spring and surveyed hunters in fall for years. "I've been doing it for 40 years now and still look forward to it each spring," he said. "I like the early mornings … and if you get in the right spot, you can hear the grouse on their grounds up to a mile away, the coyotes and turkeys talking …"

North Dakota is in a unique position of having an incredibly solid foundation of knowledge about sage grouse thanks to Kobriger's years of work on the species, Kreil said. "For the past 40 years, Jerry has taken a personal and professional interest in this species, which allows the Department to be confident in its management of sage grouse," Kreil said.

The compilation of field work allows the Department, Kreil said, to answer the basic questions that other sage grouse states struggle with: status of the population and impact of harvest.

The hunting pressure sage grouse receive in southwest North Dakota in fall is light when compared to other upland species like the exotic ring-necked pheasant or native sharp-tailed grouse. In the last decade, Kobriger said, 100-200 hunters have annually chased these birds over land that requires pulling the occasional cactus from your bird dog's paw. "There are some hunters who have

Photo Omitted

been traveling to southwest North Dakota for 20 years to hunt these birds," Kobriger said. "While every year you run into someone new, there remains a core of people who are real diehards and just love the area. For them, getting a bird is a bonus, not a must."

Slow and lumbering on take-off, and straight-line fliers once airborne, sage grouse have been described by some as not the sportiest birds around. Which, depending on your definition or sporty, may be true. But the birds are quick learners, so getting within shotgun range can be a problem. Aged accounts have hunters describing how they shot the birds from some distance using rifles of varying calibers.

"*We always hunted them with a .22 cal. repeating rifle. It was easy to pick up a half a dozen of these birds at early morning or at dusk. I've hit big ones on the wing with a .22 cal. rifle because of the way they fly. It's just like shooting jackrabbits,*" reported G.L. Wingstrand of Rhame in *Feathers from the Prairie*, who hunted sage grouse from 1910-20.

For more than a century, hunters have debated whether sage grouse are worthy table fare. While some say the birds aren't good eating, taste too much like sagebrush, Kobriger lauds the flavor of young grouse.

"The young birds are delicious," he said.

Teddy Roosevelt's tastes are in the same camp, as seen from his recount in *Feathers from the Prairie: "It is commonly believed that the flesh of sage fowl is uneatable, but this is very far from being the truth; on the contrary, it is excellent eating in August and September, when grasshoppers constitute their food, and if the birds are drawn as soon as shot, is generally perfectly palatable at other seasons of the year …"*

It's believed to be a good thing that what few sage grouse there are in North Dakota are isolated in the southwest corner of the state. If the birds were situated nearer a major population center like Fargo, for instance, hunting pressure would likely be more intense, forcing Game and Fish to manage the species differently. "For some North Dakotans, having an excuse to travel to the badlands in September is one of those special opportunities our state's diverse wildlife populations offer," Kreil said. "Along the same lines, people will travel to the Turtle Mountains just to walk through the aspen woods to hunt ruffed grouse. If they shoot one, that's fine. But it's the experience, the country, which makes the opportunity one to remember."

Sage grouse are secreted away in southwest North Dakota because of the species' tie to the aromatic plant found in its name. While there are few records of its original range in North Dakota, scientists believe sage grouse never extended far from the Little Missouri River drainage since that was also the extent of the range of big sage, Artemisia tridentata, in North Dakota.

Sagebrush is vital to the survival of sage grouse. The birds rely on the plant for food, cover from the weather and predators, and nesting and brood habitat. "From late fall to late spring, sagebrush makes up about 90-plus percent of their diet," Kobriger said.

Scientists tell us sage grouse are both herbivorous and insectivorous: young primarily eat insects and small flowering plants, while adults eat sagebrush during the cooler

Photo Omitted

months. Unlike other birds, sage grouse are not tailored to digest seeds, so they don't benefit from many agricultural crops. "They have switched their diet some with agriculture moving into their habitat," Kobriger said. "They like eating alfalfa, and seem to benefit from it."

The number of sage grouse that have strutted in and out of the sage over the years in southwest North Dakota has never been staggering. Just enough birds to maintain a simple population, unlike places like Wyoming and Montana. Yet, like all sage grouse populations across the West, the birds in North Dakota have, at times, showed signs of fading.

The weather has likely played a role in the rise and fall in grouse numbers, but not as much as the loss of sagebrush habitat so vital to the survival of these birds. Or has it? Biologists assume a decline in habitat has led to a fall in grouse numbers, but while changes in habitat appear evident, Kobriger said Game and Fish doesn't have all the data it needs.

"We can say there has been a loss overall in sagebrush acreage and there is some question as to the quality of the acreage left," he said. "What we don't know is the number of acres now as compared to, say, the early 1900s."

Since 1980, sage grouse populations have dropped an estimated 45-80 percent throughout the West, scientists have said, because of fragmentation and degradation of sagebrush habitat. Efforts by some western U.S. conservation groups to get the U.S. Fish and Wildlife Service to place the bird on the federal endangered species list have failed so far, although requests continue to surface.

Sage grouse today are hunted in nine states, the Dakotas included, but they have vanished from Arizona, British Columbia, Kansas, Nebraska, New Mexico and Oklahoma. In Alberta and Saskatchewan, the bird has been listed as endangered by the Canadian government.

Last fall, Kobriger said he checked only eight birds shot by hunters in the badlands. From 1995-2002, harvest numbers have annually been in double digits, with 68 in 2000 being the most. Kobriger said he's seen radical changes in sage grouse harvest numbers before, so it's unclear whether biologists should be concerned.

"It's too early to get overly excited," he said. "I'm anxious to see how many birds show up on their grounds in spring, then we'll know a lot more."

RON WILSON is editor of North Dakota OUTDOORS.


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Did You Know?

• Sage grouse are the largest members of the grouse family found in North America.

• Adult females are 19-23 inches long and weigh about three pounds. Males are much larger, 26-30 inches long and weighing up to seven pounds.

• Sage grouse inhabit the Little Missouri River drainage system in southwest North Dakota where stands of sagebrush are found.

• During winter, sage grouse feed on little else but sagebrush. This aromatic plant is also critical to survival as it provides the birds shelter from weather, predators, and provides nesting and brood habitat.

• Common names for sage grouse include: sage hen, sage fowl, sage cock, sage chicken, heath cock and heath hen.

• Males gather on leks, or strutting grounds starting as early as late February. To attract hens, males strut, fan tail feathers and swell their breasts to reveal mustard-colored air sacs. Wing movements, inflating and deflating of air sacs combine for interesting sounds.

• Hens visit strutting grounds, typically in the early morning, where they select a mate. The centrally located, more dominate males are chosen most often by females.

• Sage grouse were described by Lewis and Clark in 1806. Nineteenth century settlers and travelers told of huge flocks that darkened the sky.

• Scientists tell us today that sage grouse populations have dropped from 45-80 percent in the last 20 years throughout their historic range.

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